

GeoTesting Express, Inc. (GTX), provides soil testing services for all types of earthwork applications.

Accredited by:

- AASHTO
- A2LA ♦

Validated by

- U.S. Army Corps of Engineers

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## Capabilities of GeoTesting Express' Soil Testing

GeoTesting Express provides soil testing services for all types of earthwork applications. Our laboratories perform over 100 standard soil tests according to the appropriate American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), International Organization for Standardization (ISO) and United States Army Corps of Engineers (USACE) standards. Our capabilities range from basic index tests to sophisticated strength and compressibility tests. Our automated testing equipment and experienced staff allows us to provide rapid, high quality and professional test results.

Typical Strength & Compressibility Tests	Test Method
California Bearing Ratio (CBR)	ASTM D1883 ♦ / AASHTO T 193
Consolidated Drained (CD) Triaxial Shear	ASTM D7181 ♦ / USACE EM1110-2-1906
Consolidated Undrained (CU) Triaxial Shear with Pore Pressure Measurements	ASTM D4767 ♦ / AASHTO T 297
Constant Rate of Strain Consolidation	ASTM D4186 ♦
Cyclic Triaxial - Modulus and Damping	ASTM D3999
Cyclic Triaxial - Load Controlled	ASTM D5311 ♦
Direct Shear	ASTM D3080 ♦ AASHTO T 236
Direct Simple Shear / Cyclic Simple Shear	ASTM D6528 ♦
Incremental Consolidation	ASTM D2435 ♦ / AASHTO T 216
Residual Shear	USACE EM1110-2-1906
Resilient Modulus	AASHTO T 307 ♦
Resonant Column/Torsional Shear	ASTM D4015 ♦
Swell of Cohesive Soil	ASTM D4546 ♦
Torsional Ring Shear (residual or fully softened)	ASTM D6467 ♦ / D7608
Unconfined Compression	ASTM D2166 ♦ / AASHTO T 208
Unconsolidated Undrained (UU) Triaxial Shear	ASTM D2850 ♦ / AASHTO T 296

♦ Tests for which GeoTesting Express is accredited by A2LA



# Soil Testing

## Full Service Laboratory and Field Testing of Soil, Rock and Geosynthetics

- We strive to have the fastest turnaround time available by utilizing automated testing equipment.
- Our technicians are: certified by NICET, OSHA safety trained and Troxler-certified for nuclear density gauge use.
- We actively participate in ASTM creating new and improving existing test standards.
- We can provide testing services on contaminated soils.
- We have extensive international experience with the ability to receive foreign soils for testing as we maintain a license with USDA.

Typical Soil Index and Hydraulic Tests	Test Method
Atterberg Limits	ASTM D4318♦ / AASHTO T 90
Capillary-Moisture Relationship (fine and coarse grained)	ASTM D3152 / D2325
Density	ASTM D2937♦ / D7263♦
Electrical Resistivity	ASTM G57♦
Fixed Wall Permeability	ASTM D2434♦ / AASHTO T 215
Flexible Wall Permeability	ASTM D5084♦ / USACE EM 1110
Grain Size Analysis	ASTM D422♦ / D6913 / AASHTO T 88
Lab Vane Shear	ASTM D4648
Modified Proctor	ASTM D1557♦ / AASHTO T 180
Moisture Content	ASTM D2216♦ / AASHTO T 265
Organic Content	ASTM D2974♦ / AASHTO T 267
Percent Passing #200 Sieve	ASTM D1140♦
pH	ASTM D4972♦
Relative Density (Minimum & Maximum Index Density)	ASTM D4253♦ / D4254♦
Classification	ASTM D2487♦ / USDA Textural
Specific Gravity	ASTM D854♦ / AASHTO T 100
Standard Proctor	ASTM D698♦ / AASHTO T 99
Visual Classification	ASTM D2488♦

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Typical Soil Stabilization/ Solidification Tests	Test Method
Compressive Strength of Soil-Cement	ASTM D1633
Freezing and Thawing of Soil-Cement Mixtures	ASTM D560 / AASHTO T 136
Making and Curing Soil-Cement Samples	ASTM D1632
Moisture-Density Relations of Soil-Cement Mixtures	ASTM D558 / AASHTO T 134
Preparing Soil-Lime Mixtures	ASTM D3551
Wetting and Drying of Soil-Cement Mixtures	ASTM D559 / AASHTO T 135

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